

Mobile Station Over-The-Air Summation Test Report.

# On the 2G/3G/4G/WiFi/Bluetooth/GPS Mode

Report No.:

HW Version:

# Testing Performed at Guangping OTA Lab

[CoolRuijie R & D Center]

[Date] 12/07/2023

[Shenzhen Guangming District Huaqiang Creative Industrial Park]

|                    | Name  | Function        | Date         | Signature |
|--------------------|-------|-----------------|--------------|-----------|
| Test performed by: | [宋祖义] | Antenna         | [12/07/2023] |           |
|                    |       | RF engineer     |              |           |
| Report created by: | [安增侠] | RF Leader       | [12/07/2023] |           |
|                    |       | ODM China or PM |              |           |



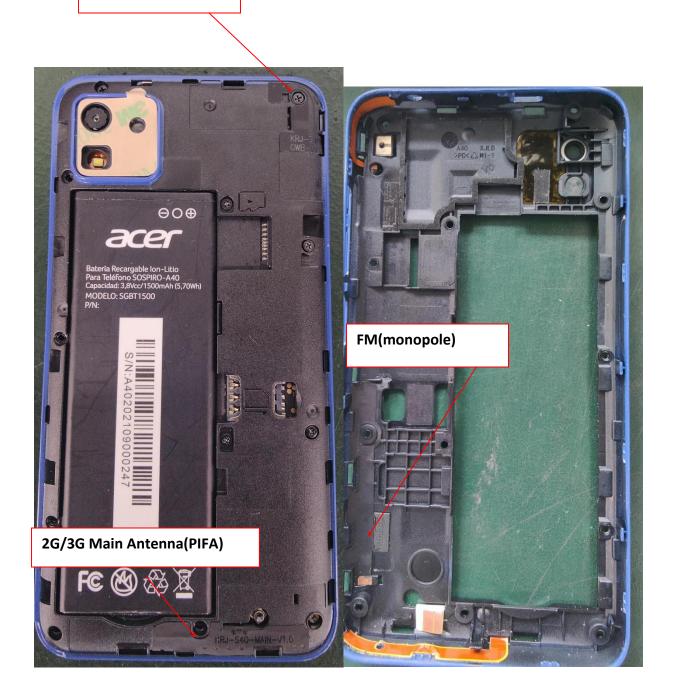
# 1. Test System General Information.





### 2. Antenna types and locations

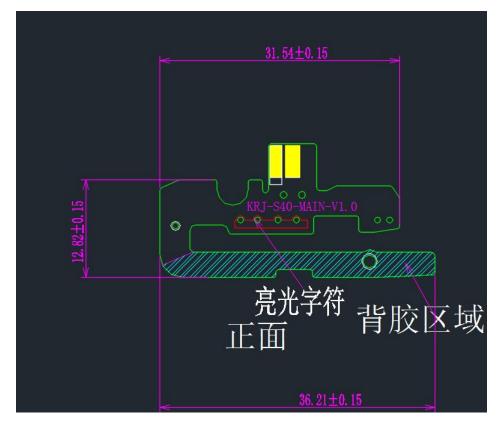
GPS/WIFI/BT(PIFA)



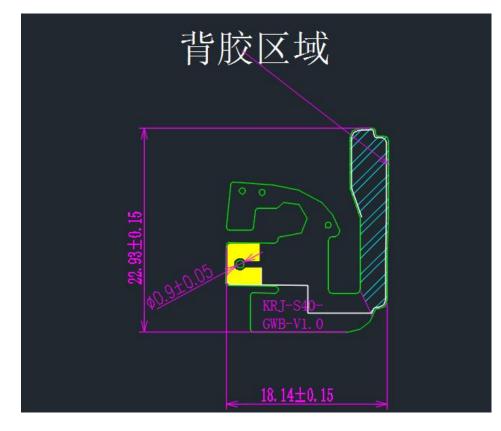


## 3. Design and printed pattern

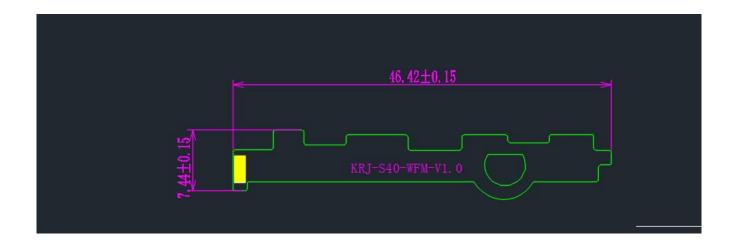
### main antenna



#### GPS / WIFI / BT antenna





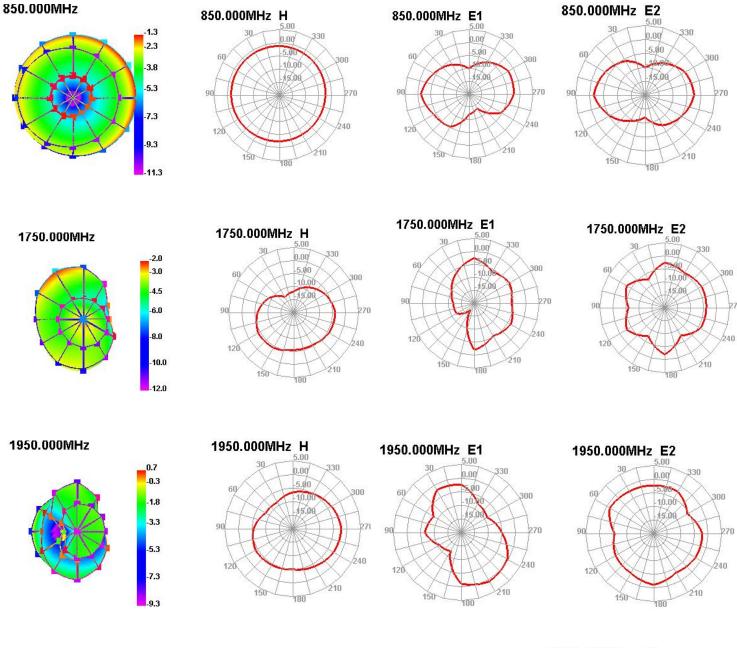


# 3. Antenna gain, direction diagram:

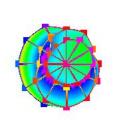
### main antenna

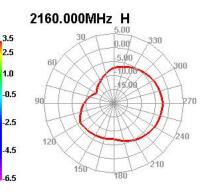
| Passive | Test For | 824-2170 |
|---------|----------|----------|
| Freq    | Effi     | Gain     |
| (MHz)   | (%)      | (dBi)    |
| 850     | 34.1     | 0.6      |
| 1750    | 41.3     | 1.5      |
| 1950    | 45.5     | 1.5      |
| 2160    | 43.9     | 1.5      |



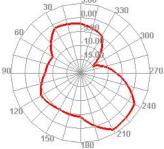


2160.000MHz

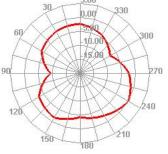








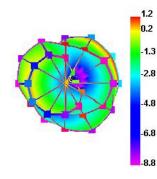
2160.000MHz E2

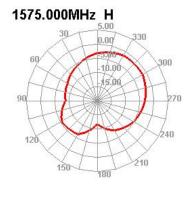


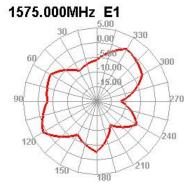


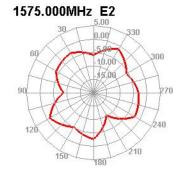
| Passive 7 | fest For Wi | IFI/BT/GPS |
|-----------|-------------|------------|
| Freq      | Effi        | Gain       |
| (MHz)     | (%)         | (dBi)      |
| 1575      | 31.8        | 0.8        |
| 2450      | 40.5        | 1.2        |











#### 2450.000MHz

